Mecklenburg County
Common Code Defects

Residential Building

Code Defects

Unstable soil conditions. Some examples of this include:

- Expansive soil
- Shifting, compressible soil
- Load-bearing values less than requirements listed in Table R401.4.1

Code Description

Section R401.4 & R401.4.1 & 401.5 Soil Compaction Test .

" In areas likely to have expansive, compressible, shifting or other unknown soil characteristics, the building official shall determine whether to require a soil test to determine the soil's characteristics at a particular location. This test shall be made by an approved agency using an approved method.

The load-bearing values greater than 2000 psf in Table R401.4.1 require an engineering evaluation.

When top or subsoils are expansive, compressible or shifting, such soils shall be removed to a depth and width sufficient to assure stable moisture content in each active zone and shall not be used as fill; or stabilized within each active zone by chemical, dewatering or presaturation."

Possible Options:

In this situation, a single standardized form, the **ONE/TWO FAMILY SUB-GRADE VERIFICATION FORM** (see attached) could be utilized to report test results and believe the new form will eliminate many problems. This form will be transferred to the testing company's letterhead, filled out completely, signed by the soil testing company's licensed engineer, and then submitted to the building official.

Disclaimer: There may be other ways to comply with the Code. If so, you are not required to use this method to comply with the Code. You may want to investigate other options, or consult with a design professional identifying an equally code compliant solution.

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Your Company Letterhead

ONE/ TWO FAMILY SUBGRADE VERIFICATION FORM

FOR MECKLENBURG COUNTY ENGINEERING AND BUILDING STANDARDS USE ONLY

CHECK AS APPROPRIATE:

[ ] RESIDUAL SOILS [ ] STRUCTURAL FILL Approx. depth: _____ft.

Date: _____

Project Information:

Subdivision: _____
Lot Number: _____
Street Address: _____
Building Permit # _____

Builder / General Contractor

Company Name: _____
Address: _____
_____
Phone Number: (___) _____

Soil Engineering Company

Name: _____
Address: _____
_____
Phone Number: (___) _____
Project Manager: _____
Project Number: _____

Allowable Bearing Pressure: _____ psf

Personnel from our firm have verified the bearing capacity of soils intended to support the residence noted above. Where appropriate, we have monitored proofrolling of residual soil prior to fill placement, conducted laboratory Proctor and field density tests on fill soil, and/or conducted dynamic cone penetrometer tests on subgrade soils. This work was performed in accordance with accepted engineering practice as required by the North Carolina State Building Code Vol. VII (One and Two Family Residential).

_____
Signature/Seal of licensed professional engineer

Form revised March 23, 1999

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End Notes

North Carolina State Building Code

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